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ADMIRAL WEST: To survive, yes. I mean, they have to break even or -- or they go out of business.

ED WELCH: Which would be a fundamental change in terms of federal government policy for this type of thing.

Okay. Anybody else?

Mr. Manns -- he sent two letters, and one of them was talking about this dilemma with the NGA charts, and the other he had some comments about some -- some concerns about I guess the current NOAA pricing review.

Have you seen that letter and is there anything you can tell us about that?

HOWARD DANLEY: About the pricing, I don't remember exactly what Mr. Manns said in that one, but --

ED WELCH: Okay. Well, then, it's not fair of us to ask you that question at this point.

We'll discuss skit it a little bit later at the public comment period.

Any other comments or questions? Yes, Elaine.

ELAINE DICKINSON: On the NGA aspect, is it within the realm of possibility that they would be converted to print-on-demand products so people could get them, bypass this whole other issue?

HOWARD DANLEY: That would be -- that is a possibility, yes. If the hurdles that they have -- I think there may be some copyright issues because of the information on -- NGA charts is derived from countries who have copyright, but it's certainly -- it certainly could be navigable.

ED WELCH: Okay.

Well, you've helped us generate quite a discussion. Thank you very much.

HOWARD DANLEY: Thank you for your time.

ED WELCH: Okay.

We're -- we've got a break scheduled for a few minutes. What time is it now? Let's -- let's break -- we're scheduled to resume at 10:45. Let's go to maybe ten minutes after 11:00. Come back here at five of 11:00.

(Recess.)

ED WELCH: Thanks, folks, and I'm going to

recognize Admiral West for an introduction of our next presenter.

ADMIRAL WEST: Thanks.

Back at the height of the Cold War, Narragansett Bay was full of Navy ships, I mean lots and lots of ships, and Newport, over at Quonset Point, and of course submarines that would come in for all the torpedo work, so there were lots and lots of ships there.

There's no more ships out there anymore, other than ones that stop to visit, but what Newport has become, the Navy base, is a concentration of Naval Officer Training with, of course, the Naval War College is there and Chapman School is there, Officer Candidate School is there and legal schools there and on and on and on.

But the premier school there is a Service Warfare Officers School at Newport. SWOS -- and Neil will explain to you how they do this.

SWOS is where we training all the officers that go drive ships in the Navy, and they come -- before they go to their first ship, they come back after theirs first tour, after

their second tour, after the their XO tour, and after the CO tour.

So it's a sequential training command, and I'll let Neil talk to you a little more about at that.

But the training for officers on our ships is concentrated in Newport. The training for officers for submarines is here in Groton. Aviators are trained down -- concentration is in Pensacola and special forces out at San Diego with lots of ancillary training places.

But the concentration and training the officers go to sea on our ships are right here in Newport.

I'll let Neil tell you a little bit about himself. I will tell you, once you've driven ships all your life and that's what you like to do and you've had your major command, which is basically your last one, and you get relieved and you go, oh, damn, this is the end of it. There's nothing else to do.

It's really depressing, and it was for me, but there is one job for a surface warfare officer as a captain out on a ship that's

really, really good, and that's the CO of SWOS.

So welcome Neil Parrott, the CO of SWOS.

CAPTIAN NEIL PARROTT: Thank you very much.

I'm going to change up the plan here. I have this 11-slide brief that goes quickly, but I thought this morning I kind of was in the mindset of coming up here, Admiral West contacted me it seems like several months ago but a long -- I had long lead time, and then this morning I found this really neat video that I used for the Navy League a couple of weeks back for their quarterly meeting down in Newport, so I'm going to try it off on you and see what you think.

Because really, if you think of surface war fair officers, as you see, we're users of what you're talking about, okay? We're the users of those nautical charts, we're the users of electronic navigation.

But I'm going to show you what we do with this, and I am going to even try to add some sound with it, so here goes nothing.

TOM JACOBSEN: Do you have sound on that?

CAPTIAN NEIL PARROTT: Don't worry about the sound so much as the pictures. Watch the video.

This is all about exercising our maritime strategy.

That's my old ship right there.

ADMIRAL WEST: Looks like mine right there.

CAPTIAN NEIL PARROTT: Okay.

So the common core of all that we just saw is, of course, we have to have safe navigation to do all that stuff. Does everybody buy that?

And that is part of my job up there at the Surface Warfare -- down there at the Surface Warfare Officer School at Newport, Rhode Island. And I'll show you right here, our mission statement very simply, and I'm really paraphrasing on it, some bureaucrat --

Do I need to use the microphone? Am loud enough?

ED WELCH: Jill is the arbiter.

CAPTIAN NEIL PARROTT: Okay.

So if you see our mission statement, just concentrate on the bottom statement: We

prepare officers to serve in their next job at sea.

That's our whole job down there, and we take the young -- the newest ensigns that are fresh out of college and the Naval Academy, and we train them how to -- you know, right full rudder from left rudder.

And then we also teach them how to navigate, and we teach them a little bit about maintenance on their ships, and we teach them about, you know, how to properly salute the ensign when they come on the ship and all that.

How long would you guess we have to do that for those brand-new ensigns?

MATT WELLSLAGER: Six weeks.

CAPTIAN NEIL PARROTT: That's a good guess, but it's wrong.

JONATHAN DASLER: Four weeks.

CAPTIAN NEIL PARROTT: Three weeks. Three weeks is what we get.

But it's a continuum of professional education, so we give them three weeks from whatever their source program is, NROTC, 72 universities throughout the nation. Officer

Candidate School down there in Newport, Rhode Island, co-located with us, or the Naval Academy out of Annapolis.

And in that, we assess about 800 officers per year, and we bring them to the school, give them three weeks and send them out to their first ship in the Navy, okay?

And on that first ship, then they have about 15 to 18 months to demonstrate certain skill sets before they earn their way back to Newport, and then we work on their advanced ship-handling.

And in all that time, one of the biggest things that I think we can -- one of the most important things that we can teach those officers -- because they're largely deck officers to begin with for their first two tours, they're deck officers, is to safely navigate ships.

Okay. Now, one of the things the Surface Navy is doing that they should have done quite some time ago is fully converting over to electronic navigation.

Now, I'll be honest with you, how many of

you have some sort of GPS device in a car that you drive? Does anybody do that?

So they're pretty neat devices. They're great. And I'll tell you what, I was telling Ed here that even though I'm just very close there in Newport, I rarely get off the island unless I'm going to and from the airport, and to get her today, I had to have GPS.

Okay. So when -- when this tells me get off on Exhibit 23, turn right and then bear right, I also look up to make sure there's a road there on the right with which to turn right and bear right on, correct? Okay.

So one of the things when I came off my ship last winter, I reported in to the Naval Force -- Service force Headquarters out in San Diego waiting for a new job, and one of our cruisers had run aground off of Hawaii the night before, and so guess who got to do the investigation?

What I found, sadly, on that, they didn't lose an engine, they didn't loose -- something didn't go wrong with their running gear or anything like that. They simply drove that

ship aground watching their electronic navigation and not looking up out the window.

And you shake your head. We have now had great -- over here in the Service Warfare Officer School, we've invited in the Merchant Marine, the Coast Guard, of course the Naval Academy, anybody that -- any maritime profession that we could think of, invited them in, and they all have the same problem.

These gadgets are great, but we've got to understand how to do basic navigation in order to properly use and -- and check what those gadgets are doing for us. Does everybody follow me on this?

So that's my task in life, to make sure we can do that accurately without running our ships aground.

Admiral West mentioned there's no ships in Newport. What is the best classroom for somebody learning the maritime profession?

Ma'am, what do you suppose, best classroom? I know, four hours per night, that's right. Best classroom? Can anybody help me out?

The ship. Of course it is. The best way -- this goes back hundreds of years. How did people learn their profession at sea? We took the midshipmen's to sea for years on end before we decided we were going to offer them a regular commission in the Navy.

And I still subscribe to that. I think there's value in having a continuum between the brick-and-mortar schoolhouse, that's the Surface Warfare Officers School, and the ship.

So again, it's my burden to -- it's my task to make sure that I have that continuity with all of our 272 ships that are running around out there, and did I have a proper handoff between the ships and the schoolhouse along the way.

So of course we use quizzes, homework, reading assignments. It's a graduate level education for these officers just coming out of college.

And I tell them, number one, you're going to do more reading than you've ever done before.

Most of them, by the way, haven't been to

graduate school. Couple might have, but they're used to being spoonfed in colleges, okay? I know colleges aren't supposed to do that, but they do.

So what we have to do is get them in the habit of reading things like Bowditch and all those things, all the tried and true references that we still use to this day, and then we teach them how to use those things.

In addition to that, we work on the individual skill sets, but we have to work also on team training.

So the -- the United States -- my last ship was a 40,000-ton helicopter carrier, and on that bridge on any given day, we usually had about eight people, okay?

Our -- our Littoral Combat Ship, our newest class of ship in the Navy, has all of two people on that bridge. One drives and one looks out and navigates, talks on the radio, anything else that needs to be done on the bridge, and that's more of the direction we're going, so it's even more -- it -- it's more imperative for us to teach sound navigation

skills.

Now, I'm going to tell you, I come to you representing the user end of navigation. I heard a little bit of the tail end of that discussion there, and I'm telling you, if you give me a chart or -- more likely than not, the chart is loaded up electronically, so I have the electronic, I take it on face value that that chart is correct. Okay?

I'm still -- I still come from the Navy where we did our own corrections on the chart, pencil corrections and checked those corrections back and forth, but I'm going to tell you, those days are gone.

But the good news is, it's very easy to correct charts as long as you have the corrections, the surveys have been done and so on and so forth.

Oftentimes we're asked to go into the far corners of the world where nobody has surveyed the ports for years and years or we're using pre-World-War-II charts and understand that there's certainly an inherent risk if we're asked to go into a port with that kind of time

lateness on our survey data.

Again, that's something I have to teach our navigators now or the people that teach take ships to sea. Those gadgets are great, but remember, it's garbage in, garbage out.

If you digitize an old chart and put it into the system electronically, it's still an old chart, right?

So we teach the sound navigation, even if you had to go into one of those ports and you're not sure about the depth, if you have to go in on a lead line, you have to go in on a lead line. Send your boat in ahead of you or something like that or don't go in. Anchor out and just move your crew using your ship's boats.

But anyway, it's a continuum of learning that uses these tools to teach. Okay? So there's really nothing between the classroom and the ship. These officers are bouncing back and forth, but what's new, because we don't have ships, it was -- we use lot of technology trainers out there now.

I have -- has anybody been down -- besides

Admiral West, has anybody been down to the Surface Warfare Officers school ever? Okay. I challenge you to come on down to the Naval Station in Newport, and I will bring you into our ship-handling trainer, which is a regular GMATS-run trainer, but we own it.

And we contracted the GMATS individual to teach, of course, my lieutenants. My lieutenant commanders go in there and teach as well.

But I'll bring you in here, and I can -- you tell me what sea state you want, what weather you want, what class of ship you want, whether it's a Coast Guard cutter or Navy destroyer, or an aircraft carrier, we can model it, and I can even make you seasick in there.

And it doesn't move, by the way. It does not move. That's how good the graphics are these days.

Now, these 23-year-old officers get it, because they grew up with this kind of technology. They really, really understand that.

But what I also have to make them

understand is when they crash that ship into the pier when they're trying to come alongside and tie up, that's okay in the trainer, but that's a billion dollar warship when they're out there with 300 sailors that you can't put a price on the value of their service and certainly those lives.

So we really take this seriously on our ship-handling training, and I challenge each of them don't bump into the pier, don't bump into the oiler when you're going alongside, don't bump into the merchant ship when you're trying to get out of Narragansett Bay here.

That's what we don't want them to do being, okay? And that's kind of what we teach.

We also teach tactical training, just so you know, and I'll be dealing in the ship-handling and navigation here this morning. But the tactical training, I can deal with any type of scenario that we can come up with.

So counterpiracy is big these days. And if you can imagine, those are things that unfortunately, you know, we've been doing counterpiracy since long before our Navy

actually existed.

And in the early days of our country, one of our first missions was counterpiracy in the Mediterranean, okay? And I've got to tell you, there's still no written tactic, technique or procedure or doctrine that we've published that tells us how to do it well, okay, because that's something -- it just depends who the pirates are, okay?

So I really won't deal with that too much here this morning, because that's off the topic of using your charts and safe navigation; but more than anything, remember, we do that up there as well. We have to teach people how to fight the ship, and that's that portion of the chart.

And then over here, we also do the same thing on the engineering side. So much like the merchant model now, the engineer may or may not be in the plan. And on the new Littoral combat ship, the person that's monitoring the engineering plant is doing guess what else? They're navigating the ship. Okay?

And I got to tell you, you know, just kind

of being old-school, and also was a chief engineer three times over, I'm telling you, I didn't like it when I first heard about it, but it actually works, okay? Because the guy on the bridge can focus on navigation, once he gets his prompts on the -- you know, something that might be going down in the plant, you have people on that ship that can respond to it. He is really just conveying the message to people that need to take action on it.

But again, we have to train all those watch standards. For instance, we're doing counterpiracy. We're going through the Straits of Hormuz coming in and out of the Arabian Gulf, what happens almost every time these days is we get small boats coming across that are generally smugglers, but they are armed.

And so we have to worry about staying in the navigation channel. It's pretty deep water. You don't have to worry about running aground, but there's lots of other ships out there, too.

And so do you -- do you, you know, do you want to avoid taking that gunfire or do you

want to stay safely in the channel? And we're asking a 23-year-old to decide that, okay? So that's what we have to train for.

And don't forget, I don't want to scare you. You always have crusty guys like me on the bridge, too, Admiral West on the bridge, and they give the -- you know, the overarching --

I always contend that when something like that happens, that's probably where I'm either going to be making a head call or I'm -- I've got my nose in some piece of paperwork back aft in my cabin, and I'm -- I'm 30 seconds away from actually being on the bridge.

So we train them to make these snap decisions, and they're -- they're actually pretty good at it. I'm very, very impressed with the officers that come through.

But let me just explain how we train navigations here.

So I talked about the three weeks of Surface Warfare Officer intro. So before they go to their first ship, we give them three weeks, and it's pushing out to four in June.

I got to the job in August, and I started stamping my feet, having four ships over the last 11 years, and I said no, no, no, no, we got to get them more, got to get them more, okay?

And I'm actually -- I'll tell you, we're finally getting this extra week. I probably won't get it done anytime real soon, but I'm going to try and push out to two months.

I think the right full rudder and left full rudder is easy. Navigation, we're get a getting a handle on that.

By the way, that cruiser grounding I had to investigate, I learned that from the seaman apprentice who is actually putting a fix on the chart up to the commanding officer of that ship, they did all -- they all failed to follow safe navigation procedures.

And those procedures, even though that ship was still on paper charts, those procedures are the same procedures that were used in World War II. These are not new procedures. They're tried and true procedures, safe navigation procedures.

So again, that's one of those that I see as my job, is to reinstill safe navigation, because as the floor shifts and within two years we'll be all electronic, no paper navigation charts on those ships --

Submarines are already there, by the way, they're already there, and they have the same growing pains. We really have to have the academic underpinnings of safe navigation reinforced.

So three weeks, pushing out to four here next month, and then they go to their ship for 15 to eight months. They work on what we call personal qualification. So it's hundreds of line items, navigating your ship using, you know, electronic navigation -- you know, on and on and on and on.

And they do these things, and their senior officers sign off on not only them doing it but their proficiency in doing that. And that builds a professional portfolio for this officer that then they earn their way back to us for three more weeks before they get their qualification here.

Their certification as a Surface Warfare Officer, and that acronym is Advanced Ship Handling and Tactics.

And we spend a lot of time with the Advanced Ship Handling making sure they understand navigation. And now with the Littoral combat ship -- I've serviced on ships that are generally going max speed about 30, 33 knots, something like that, and now we've got ships topping out at about 48 knots.

So you don't have a lot of time if you have errors in navigation to correct. So we want to get it right the first time.

So we'll bring them up for Advanced Ship Handling and Tactics for three more weeks. By the way, I'm getting ready to graduate a class of 65 tomorrow, and we watch real carefully on the grades there, too.

I'd say no more than two per class do not make it through the class. In the earlier class, we're nearly 100 percent. Because honestly, we want to try them on the ship first, but then later on when it comes to Surface Warfare Officer qualification, their

final checkmark, just like getting their wings if they were a pilot, probably about a ten percent drop rate out of that.

And what I look for is guys who just don't understand relative motion or they don't understand -- you know --

It's not hard to teach navigation, but it's -- I found it's difficult to teach diligence in navigation, okay, tenacity in navigation. And that comes from my experience on ships. Okay?

But we also keep out there division officer study guides, this is the bowdage [phonetic], all the references they have, and encourage them to get into those references frequently.

And those, by the way, are electronically updated as those things change out in the fleet.

So it's kind of like you expect, if you go out and hire a lawyer, we want the lawyer to have the most current state codes, right? You expect professionals, the mariners, to have the most current references, and that's what we do

while they're at sea. We make sure we keep feeding them the most current updates on the references.

So I just want to show you how we teach seamanship and navigation. This is COVE, Conning Officer Virtual Environment. These are the virtual reality helmets. Generally a lieutenant teaching an ensign or a civilian mariner teaching an ensign or up through a captain.

It just depends on the flavor of student and the amount of proficiency the student comes in with.

And not only do we teach the ship-handling, but we teach the navigation. So that's why you usually see two in here. One is conning the ship and one is the navigator.

And we stress that, because that's our least common denominators on my LCS.

If you have a ship that you're normally manning the bridge with eight people on it, that's somewhat overkill, but we have to train all those eight people. I'll show you a picture and where we do that in a full mission

bridge scenario.

But it's as simple as that, by the way. Here again, Cove III, we're not getting away from the helmets, but the helmets also cut out anybody else that is participating in that, if you have some -- some people sitting in the cheap seats behind the conning officer, that they're learning from that.

So we have large-screen displays, these are 72-inch displays, that are also very effective in the teaching environment, because we can bring more people in critiquing somebody that's conning the ship and navigating a ship as we go, and that's why we've somewhat gone to those large-screen displays.

And then finally in the full-mission bridge -- and we can do any US port. We can do most of the international ports that we go into.

I think our goal right now is to -- to load up on the full mission bridge -- well, I'll say it this way: The same software that runs full mission bridge runs that conning officer virtual environment and all that -- the

large screen displays.

So the goal is to get all the ports that we could possibly -- if you asked me to go into Timbuktu, I can -- I can successfully model the Port of Timbuktu having those charts loaded up in our system, and that's what we really want to do.

I've already told you I can model any type of weather conditions, any environmentals, I can model any class of ship.

If you gave me a ship that we don't have or one that we're bringing online, all we need to do is build the physics-based model, and we can put a sailor in there and teach him how to drive it.

So the other part in full mission bridge -- and this is important to understand -- is we also have to teach them to defend the ship.

So don't worry too much about the acronyms, but FAC/FIAC is if you have people coming out and firing at you, the small boats, the ones that we worry about, okay.

And those are the things that not only are

you trying to safely navigate a ship, but you're also defending it at the same time, okay.

So if you look, all of our students come through there and we put them through what we call a one-two punch, kind of a graduation exercise, and they've got to exercise good sound practices of bridge resource management, navigation and of course defending the ship.

The goal in defense of the ship is to make sure we get our mission accomplished. So if it's go from Point A to Point B and we have all our sailors with us and the ship come out of it unscathed.

So kind of an IMAX version in there. And it's very, very realistic. I always enjoy it. And I challenge you, if you ever come down to Newport and you'd like to see it in action, I'll bring you down there. You tell me what class of ship you want to drive, we'll fire it up and see how you do.

And my goal, as I told you earlier, is maybe to even get you a little seasick. It's that realistic.

The only thing we're missing is the sea spray up there.

So -- but there you see. Now, LCS a little bit different animal here. The Navy has built two classes of LCS, but at least in the trainers in order to go from one class to the other, all we do is roll in a center console and roll it back out. It's about a 20-minute switch.

So again, we can do any ship the Navy how has in its inventory. Okay.

Now, here's the real meat of what I wanted to talk to you today.

So if you think of it this way, I just -- I asked my guys to pull up some stats of how many hours we train.

So SWO intro, ensigns, very junior ensigns, just new to the fleet going to their first ship, an hour and a half of electronic navigation training.

So all we want to do is get them to the point where they can go on their ship and start learning their ship's system, okay?

So we teach them the ins and outs of

electronic navigation. There's other things, too. We're doing the chart work. All of that is still in the schoolhouse. But I just wanted to show you electronic navigation.

So remember, in this officer's mind, that chart is 100 percent accurate and 100 percent up to date. They don't question that, okay?

It used to be get the chart, you have corrections along the right-hand side. Those corrections are checked.

Now on electronic navigation, those corrections come to us from NGA, come to us with the latest corrections in there, okay?

So there's a checking function on the ship that -- that these guys eventually will do, but we're not there yet.

And then they come back after 15 to 18 months, do advanced ship-handling.

Now, you notice that's four hours, because now they've already got some sort of certification out on the ship in electronic navigation through those -- those personal qualification books, okay?

So that is their commanding officer on

their respective ship has certified them in a certain level of navigation.

All we do is bring them in. We make sure they've got it and do any remediation if we need to to get them all up to the same level.

So if you took 100 ships and 100 ensigns coming in, they're going to be at 100 different levels for navigation, depending on the training program, what was the quality of the training program on the ship, 100 different levels. When they leave us after that advanced ship-handling class, every one of those ensigns is at the same level in theory, or they don't finish the course, okay? So that's the way that works.

Now, here's where we really get them. Department Head School is six months long. That's where we teach the officers to fight the ship, be a chief engineer or an operations officer or a combat systems officer, but we spend a lot of time in navigation in there, and that really is just the tip of the iceberg.

A six-hour lab in electronic navigation actually precedes bridge resource management,

paper navigation and so on and so forth.

So they get more than a prospective commanding officer gets. There's two dynamics that drive that. Number one, between being an ensign and being a lieutenant, they've probably been ashore -- they've been on two ships, and then they've been ashore two to three years.

We want to get them back in the saddle before we send them out to ships to be in a critical billet on that ship.

And the other part of it is they provide the backup for that commanding officer and that second in command, the executive officer, in all things navigation, all things safe ship-handling and so on and so forth.

So we want to make sure they're, no kidding, at the same level their prospective commanding officers who might have 16 or 17 years of experience at sea that those guys had.

And then finally, the PXO/PCO, that's a prospective commanding officer/prospective executive officer, so first and second in command. Sixteen-hour lab. Again, just electronic navigation. Still do chart work,

bridge resource management and ship-handling.

And then major commanders, those are the aircraft carrier guys, the big deck amphibs, which I came from, the cruiser guys, and we even put the commodore -- the destroyer squadron commodores through here, too, because they're still responsible for taking groups of ships to sea.

And we give them labs, navigators as well. And I've already talked to you about Littoral combat ship.

By the way, just a tidbit, in VMS, which was our program -- Admiral, wasn't that your brainchild there?

So the Voyage Mission System is our program of record for electronic navigation, SWOs down there has the largest VMS lab in the Navy, 32 seats.

And you can see with all the -- remember, our school is a single-source school. Every officer going to ships in the United States Navy, okay, make up 91 percent of our students, and the other nine percent is US Coast Guard and international. We have a small

international footprint there as well. Okay.

Okay. So just a little bar chart to show you here. And just the interpretation here, those helmets, the virtual reality, that's the blue right there. So here's ensigns and here's very senior captains over here, and here's -- the axis over here on the left, 20 hours, and these are minimums, by the way.

If somebody is having trouble, if they've been sitting on the Joint Staff for three years and been the PowerPoint ranger for three years and they've forgotten everything they learned, if it takes 40 hours, we're going to take 40 hours or they're not going to their command until we get them to the point --

So these are just minimums, and some take longer than others.

And I'll also add there that my last ship in a line of seven was the first time I ever went to the same class of ship twice. So every time, every ship handles a little bit differently, every ship class handles a little bit differently, so we also --

By the way, the way that assign officers

to ship, we also have to teach them sometimes how to drive that ship for the first time.

They always knew the right full rudder from left full rudder, but how does that ship actually respond to that?

The green, which is the biggest bar here for a reason, is navigation, bridge resource management and rules of road.

By the way, our standard is the Coast Guard standard. It's the -- you know, thousand-plus Coast Guard test bank. And the minimum score for everybody from ensign to major commander is 90 percent or you don't graduate, okay?

And that I really feel is one of those -- it makes sense that we're doing, although we don't offer a Coast Guard or a merchant certification, if we're doing those same sorts of things, that keeps us honest as far as our education and our credentials at the school.

And then finally, the ECDIS-N here. So we talked about the electronic navigation. Last slide shows you where that fits in. If somebody comes in, what we're finding right

now, except for the brand-new ensigns, most of them have dealt with electronic navigation at least once before.

Given another five years, it will be natural to them, and we're just going to be doing refreshers. But right now, one or two students per class, we spend a little bit more time.

And use that analogy of the GPS in your car. These are great tools to learn, but don't make them the only thing you rely on.

We still have radars. We take radar bearings off of things when we're in -- you know, close to land, visual bearings. And you use good common sea sense when you have ships out there.

So it's as simple as that, but you can see the breakdown of what we train on.

So I just want to show you our student body. On any given day, we have 300 students on deck. These are the ensigns here. These are the prospective major commanders going to carriers, big deck amphibs and cruisers here.

So we spend most of our -- most of our

human capital is spent on those ensigns who have been kind of like the midshipmen of old sailing days where they've spent about a year to a year and a half on their ship and now we're giving them the real meat and potatoes of their profession as far as taking ships to sea, okay? So that's where we spend most of our time.

And if you look at the curriculum, this course is three weeks long. This is six months long. So this is our critical mass, right in here, all right? And they do get one shore duty in between there.

Okay. That concludes the formal portion of my brief. And here's what I want to be your takeaway. Well, two takeaways.

Number one, if you ever make it down to Newport, Admiral West can give you the contact information, come see how we train people to -- to take -- the officers to take ships to sea. I'd encourage you to do that, because it is the premier school on the base, co-located with the Naval War College, so it's easy to -- I think all the signs bring you to the Naval War

College. Follow those signs, and you'll get to our school down there in Newport.

But the big takeaway is what you talk about here in these couple of days about providing accurate charts and accurate survey information going into those charts, there's a lot of users out there, not just the United States Navy and the Coast Guard, that give it two more years for the Navy -- and the Coast Guard is almost there by the way -- everything that you put in there, everything you put in there is assumed to be the most accurate, the most complete information, okay, and there's very little checking function, unlike days of old where we hand-put all those changes in.

I think it's good, because even when we were hand-putting those changes in, we were also time late by a little bit. I think with the electronic updates that we do now, you know, right -- just satellite updates, I'm telling you, that is the most accurate, most current information, but it can't be garbage in, garbage out. And if it is, then -- then we've got a problem on the user end.

Okay. Subject to your questions, that concludes my brief.

ED WELCH: Captain, thanks very much. Andy Armstrong.

ANDY ARMSTRONG: Captain, thank you very much.

CAPTIAN NEIL PARROTT: Yes, sir.

ANDY ARMSTRONG: I'd like to sort of follow up on with you on the garbage in, garbage out, although I wouldn't -- I wouldn't say we're sending you garbage, but there is uncertainty in the data that's on the NOAA charts, and I'm -- I'm interested in how you think we ought to portray that uncertainty to you and the other users in the Navy.

CAPTIAN NEIL PARROTT: I think what I would key in on is time lateness of the data.

So when I get an update on a chart, for instance, Saipan -- let's see, with Saipan Harbor was the last harbor that we had a cruiser run aground in based on what he knew was very shallow --

And now remember, he has the sonar down 32 feet down, screws about 23 feet, and I -- I

think the situation was his -- he was already guided to port safely, but there was such a storm there in port that when he was trying to get out, parting mooring lines and trying to get out, there was such pitching going out that his sonar dome brushed the bottom.

The thing is -- and fortunately, I think common sense prevailed. I think I would have gone underway, too, and taken the risk, was that the chart was so -- the chart data was so old, okay, that -- that then I would maybe just going into the port say I don't know if -- I'd probably have done some lead lining. It's easy for me to armchair quarterback.

So what we teach, sir, what we teach is be wary of any of that data. When in doubt, you need to check, okay? So oftentimes we're going into a foreign port like Saipan, and we may have a chart on the ship, whether it's electronic or paper. We will chat with the local authorities and see what the most current chart data is. Do we have it? If we don't, how do we get that out to us.

So we teach them to be wary. It's our

responsibility to make sure we have the most current information. And don't take my garbage in, garbage out as a cynical stab at your organization. You provided us good information over the years, accurate information.

We are at the -- we must be of the mindset you can trust, but you must verify. And that's good principles of safe navigation, and it's as simple as that.

And if anything, if I can get across -- you may be a good navigator, a good ship, but you need to -- need to verify what the depth is in that port. You need to verify what the current marks are. And when in doubt, you may have to make a tactical decision either not to bring that ship into a port or -- or, you know, anchor out or something like that.

So the monkey is truly on our backs as navigators. Use the tools you have, but also know the accuracy of those tools.

And, after all, if a port -- you know, a couple of years ago we went into Vietnam for first time in three decades. I'm going to tell you, I've been to that -- that port hadn't been

surveyed in three decades.

ED WELCH: Captain -- oh, I'm sorry, Andy, go ahead.

ANDY ARMSTRONG: I was just going to follow up by saying there are a number of US ports that haven't been surveyed in 30 years...

CAPTIAN NEIL PARROTT: A good example, if we get into -- New York City Fleet Week, everybody wants to get into, very well surveyed, so on and so forth --

Again, I'm talking about ships with sonar domes that are pretty deep. How many people know the accuracy of Mobile -- going into Mobile, Alabama. We used to have a Naval base there, by the way.

So again, the -- the CO and the navigator needs to ask those questions. And -- and when in doubt, it's -- it's a tough thing for a -- you know, a commander in a Navy to tell maybe a flag officer I am not going to go into that port even though it's a high-visibility port that I'm expected to go into because I don't feel it's safe.

So it's -- it's our job to use the tools

that you give us with all the caveats on when it's been surveyed.

You know, what worries me more is that we take these electronic navigation -- see, we see them on a video screen, and we assume that it's very accurate because it's an electronic version of a chart. What we teach up there is you must know what --

We had an LST run aground in the early days of using GPS off of Chile there, and you could just look over the bridge and she ran -- drove herself right into the rocks.

Well, the thing is, she was not on WGS 84. You know, classic mistake. I still make -- I don't even remember what year that was, but I'll just say it was probably 15 years ago.

I still make every one of my students -- in fact, I've got a lecture at 1400 today on that case study, and the USS ARLEIGH BURKE, our oldest destroyer in the Navy now, USS ARLEIGH BURKE in her own home port going down Thimble Shoals Channel did a soft grounding because her system was walking itself off and nobody recognized it in their own home port.

Easy for me to armchair quarterback, but you really don't need any navigation if you're in your own home port and you have clear weather. You've got plenty of marks to look at.

So that's what we have to teach, sir, I know I danced around the answer to your question, but we don't -- we do not -- I don't advocate assuming that those charts are 100 percent accurate. Most of the time they are.

What I'm seeing out there is they're very good, very good charts. But a lot of places in the world that don't have current survey or no surveys at all.

ED WELCH: Any other comments from the panel? Gary.

GARY JEFFRESS: Gary Jeffress.

I assume each of your 272 vessels have sonar, right?

CAPTIAN NEIL PARROTT: No, sir. No, sir.

The -- the destroyers, frigates and cruisers have sonar, but we all have a fathometer. We can all check the depth of our waters.

GARY JEFFRESS: And they're all calibrated from time to time so that they're accurate?

CAPTIAN NEIL PARROTT: Depends if they have a calibrate -- like any device on a vessel like that, if you don't accurately calibrate, your fathometer can get out of calibration. There are daily checks for that.

GARY JEFFRESS: And so when you're just doing missions all over the place and you're going to different ports around the world, you have these things on, so you're looking at the depth.

Do you record that and say you could use that data to then update charts?

CAPTIAN NEIL PARROTT: Yes, sir.

In fact, I'll tell you, that cruiser that I briefed you on that ran aground off Hawaii, the whole day -- they had been up in the dry dock. They were underway for the first time in four months. The whole day their fathometer read 11 feet beneath the keel.

That -- I have a little bit of a hard time saying you had the device there -- clearly it wasn't working. No one even recognized it

wasn't working.

You know the depth is going to change throughout the day, and they went 30 miles out and came back. They know the depth is going to change.

So it's -- it's my responsibility to train that those devices have to be used -- and, I'll tell you, you know, the armchair quarterbacks of our organization say, well, the fathometer wasn't working, you shouldn't be out to sea in the first place. Well, they didn't know it wasn't working until they got out to sea.

It had been worked on in the shipyard, by the way. By the way, that was a -- the leads were crossed, so all the lights came on, but it didn't function like it was supposed to

But even then, you still have a lead line, and you still know your own waters. It would be different if they were in Timbuktu maybe, but you still -- you still -- you know your home port.

Oh, by the way, one of the things that we brought into the schoolhouse here that I do get a little bit of pushback -- who are the people

that take ships to sea here? I see a captain here, so --

TOM JACOBSEN: Pilot.

CAPTIAN NEIL PARROTT: So here's the -- here's the -- this is an old trick that probably someone like Admiral West made me do when I was a young officer.

These commanding officers, lieutenants, ensigns, now have to draw their home port chart from memory. Remember that trick? And you have to -- we got that from the pilots, by the way.

TOM JACOBSEN: Mm-hmm. Mm-hmm.

CAPTIAN NEIL PARROTT: So this is the sort of thing came that you've got to appreciate safe navigation practices. You can have the best chart in the world, but if you don't follow safe navigation practices, you almost deserve what you get.

So I teach -- we teach safe navigation practices up there.

As you can imagine, our Navy ships, Coast Guard cutters, submarines are all loaded with all sorts of devices. If you turn the

electronic navigation off on a clear day -- I'll say for ships, I don't know quite how submarines do it, but the thing is that you turn it off, you ought to be able to navigate in your own home port, in a known port, I'll say that, if you've -- if you've studied that chart. So on and so forth.

Thank you very much for the question.

ED WELCH: Captain, thank you. It's been fascinating presentation.

So where can we sign up for coming down to visit you in Newport?

CAPTIAN NEIL PARROTT: You can see Admiral West. I'm neil.parrot@navy.mil.

If you're coming down, let me know and we'll figure out how to get you into the schoolhouse there.

ED WELCH: Very good. Thank you, sir.

CAPTIAN NEIL PARROTT: Yes, sir.

ED WELCH: All right.

Our next presentation is by Captain Greg Gifford from the Woods Hole to Martha's Vineyard and Nantucket Steamship Authority.

Greg, welcome.

He's going to talk about marine spatial planning from the viewpoint of navigation user

CAPTAIN GREGORY GIFFORD: I'll just sidetrack a little bit --

ED WELCH: Greg, I think you're probably going to need to talk into the mike.

CAPTAIN GREGORY GIFFORD: Everybody says I yell a lot.

I sympathize with the Captain a little bit. I was in the merchant service all my life, and the saying in the merchant service is if it's gray, stay away. I guess there's not a lot of mariners here.

Just --

ADMIRAL WEST: I take exception to that.

CAPTAIN GREGORY GIFFORD: Brief overview, I started going to sea in 1968 and worked my way up through the house pipe. I didn't go to an academy or anything. I finished my career up sailing master for a number of years on tankers.

I have about 22 years on tankers and 15 years or so on different type vessels, box boats, rail rows [phonetic], things of that

nature.

For many years I was worried about spilling oil. Now I worry about spilling passengers, and it helps me out quite a bit in the PBA.

So I got a little background going to sea, working with NOAA and charts and seeing going from paper charts with regular corrections to ECDIS to the electronic chart displays, and it's an interesting transition that we've had and you guys do a great job.

Ed asked me to speak on this marine spatial planning and traditional navigation users. The Steamship Authority, a little background, we've been tasked by legislation back in the '60s to provide safe, reliable and adequate service utilizing historic routes to the islands of Martha's Vineyard and Nantucket off the Massachusetts coast.

I guess I can do that. It's a little fuzzy. I was under a little bit of pressure to get this together.

So just so you see, these are the routes here, Hyannis to Nantucket, and then Woods Hole

to Martha's Vineyard. Two ports in Martha's Vineyard. Slightly off the Kennedy Compound. We'll get into the Kennedy Compound a little later.

We complete over 22,000 transits a year, combined to those two. On the run from Hyannis to Nantucket, just under 8,000 trips a year.

The numbers are down a little bit now, but closer to three million passengers and 600,000 cars and trucks. Several of those vehicles are trucks that run hazardous materials, such as LPG, gasoline and heating oil for the islands.

We've been involved in a project in our area for a number of years, since I started in 2003, and I've testified and spoken at numerous hearings, meetings, forums, informal meetings, other gatherings and some right now escape me. It's been quite a few things.

I've penned numerous letters to federal agencies with regard to safe navigation issues, traveled to DC and met with three -- at different times -- assistant commandants for Marine Safety, Security and Stewardship for the Coast Guard as well as Minerals Management

Service.

Those meetings were specific to the safe navigational aspects of this project and the influence fixed structures in navigable waterways will have on marine traffic and commerce.

I also met personally with the commandant, thanks to Ed, at the PVA conference out in San Francisco and discussed those things, historic ferry routes, safe separation zones from these projects, ice floes, and certainly paramount to all this, public safety.

One question that still is being -- being unanswered for this particular project is the terms and conditions that the Coast Guard is supposed to be letting everyone know for this project, which involves marine spatial planning in federal waters, not in state waters.

This chart -- don't use this chart for navigation, please. Some of the layovers -- and I put up positions that are approximate, so to get all the layovers, it -- it was a little difficult.

However, these are -- historic ferry

routes are run down here. These are the main shipping channels. This one goes out to Great Round 1, which is Nantucket Shoals and Georges Bank where one of the largest fishing fleets in the United States out of New Bedford travels.

They travel in a westerly direction west-east and east to west back in the main shipping channel.

These are historic ferry routes here, some of which were -- another carrier runs from Hyannis to Martha's Vineyard.

The wind park site isn't in that -- it's an approximate area, but it takes up about 26 square miles of nautical miles of which is called Horseshoe Shoal.

Eighty-five percent -- you hear the word "shoal," and you think of very shallow water, two feet, three feet.

Eighty-five percent of that water we can safely navigate in, so it's -- it takes up a large space. This is a simulated view.

Over to the left is -- I mentioned Kennedy Compound and what this 130 wind towers will look like looking from land.

And this is most recent, just came out of the New Yorker. It's a little stab at -- he's a local guy from Chatham, Massachusetts, a local stab at the wind farm.

To go back, we participated in the Mass. Ocean Plan and President's Ocean Policy. I testified in Providence with one of Ed's colleagues, Beth [inaudible], and both of these entities have to address all the same concerns that I have, not just -- not just the state of Massachusetts, but Rhode Island, Delaware, New Jersey, on all three coasts, and other areas.

But the proposals are for the coastal, near coastal, sand mining, small large clusters of wind turbines, hydrokinetic generators in federal and state waters will definitely have a major impact on all of those waterways.

I'll get to the reason of how NOAA is -- should be very concerned with this.

And as the waterways become more crowded with potential alternative energy projects, it's essential that the government programs such as these, the spatial planning and in particular Mass. Ocean Plan for me -- keep in

mind, jurisdictional boundaries of all regulatory bodies and their input with cooperating agencies, in some matters, mostly the Coast Guard.

That being said, there must be oversight that considers all aspects of the safe navigation for vessels that operate in those proposed areas of alternative energy structures.

In other words, listen to the experts. Commercial, recreational, law enforcement and others are on the water daily, know the dangers, know the obstructions and know how to mitigate that risk of collision.

Also ensuring regulatory bodies collecting and deciphering that data that they get to ocean planning, whether it be state or federal, that they have the knowledge base to make the correct recommendations.

And one of the coined phrases from the Coast Guard is risk-based decision-making certainly comes to mind in these instances.

Consideration must be given to all these factors evaluating these proposed projects.

And once again, listen to the experts. Listen to the stakeholders that are out there in this ocean plan.

These additional ventures will have the potential for creating significant hazards to safe navigation of all types of vessels operating on a coastal and near coastal waters.

Simply moving the vessel's track line further east, west, north or south is not an option.

The PVA, as stated, the ferry routes and other traditional navigation lanes are located where they are for a reason, siting -- among other things -- economics, safety, geography, weather, water depths as key factors.

An operator should not be forced to alter the historic or establish routes to accommodate new fixed-structure uses of the waterways.

In addition, consideration must be given to the interference to marine radars created by certain structures that are positioned in and adjacent to near established shipping lanes and other historic routes on waterways that skirt the coastlines.

Setbacks must be considered to allow for target swap, false targets, radar shadowing. And erroneous information may create risk of collision or grounding, potentially resulting in a pollution incident.

2004 study by the Coast Guard and Maritime Agency in the UK concluded that there is interference on marine radars due to the wind turbines and found to be considerable, and a suitable safe distance of one to two nautical miles be established from those traffic routes.

Environmental impacts, such as wind, sea conditions, tidal current effects, ice floes all must be taken into account when considering placement of fixed or floating structures, as they may preclude vessels from utilizing areas outside of the normal routes.

From time to time, define the seasonal management or dynamic management areas are established to prevent -- for the preservation of the North Atlantic right whale along the Massachusetts and southeastern Massachusetts coastline.

These areas certainly have effect on

shipping lanes and shipping routes and the operations of vessels within and adjacent to those management areas.

As with the environmental impacts, avoidance of these seasonal and temporary areas, coupled with placement of fixed or floating structures may hamper the safe navigation of vessels in those areas.

Stakeholders opinions and oversights for the many aspects of safe navigation for vessels that operate in proposed areas of alternative energy structures should be considered by the President's Interagency Policy Task Force and participating coastal states and ocean planning programs.

These are some of the obstacles that will be presented to local stakeholders and operators, not just in my area but on all three coasts.

And wherever these site are planned, they're going to have to be well planned out.

Coastal and marine spatial planning must include all affected by any of these proposals prior to any final approval.

This is -- this is the area of the Massachusetts plan for the state waters where they intend on doing things such as sand mining, small clusters of wind turbines and the hydrokinetics, and energies.

You notice there's kind of a doughnut hole here, and that's federal waters within Nantucket Sound, strangely enough.

I was kind of one of the plank owners, if you will, of the Mass. Ocean Plan, and somehow I am not on it anymore. I'm not sure why.

But I was adamant that they put the proposed wind farm and the 26-nautical-mile footprint within that so that everyone understands going through this Mass. Ocean Plan within the state waters that somehow, somewhere people are going to be affected by this -- by this proposed site.

How does NOAA fit into all of this? NOAA will be called upon to address the changes in the charting as the accurate rendering of the relocation of ATONs, the channel markers, numerous surveys done due to the possibility of changes in bottom contours caused by fixed

structures, which are the monopiles.

In this particular case, it will be 130 16-foot-diameter monopiles put within that 26-nautical-mile footprint.

There will be changes to the seafloor. There's areas in there that have sand waves, because it is a sandy area, up to eight feet high.

NOAA will also be tasked with ensuring if there are separation zones, all those -- the other ATONs that are moved are in the proper areas. Again, it's going to be burden of the mapping of these changes to ensure that safe navigation for the many users of the waterways and most of all that ensure public safety.

The Steamship Authority is committed to the safety of the traveling public and the maintaining of safe and reliable waterborne transportation to the islands of Martha's Vineyard and Nantucket.

That being said, we're not a private entity. We just can't tie up because the weather's nice and we want to go fishing or because the weather's rough.

We are mandated -- again, by legislation -- to run up to the 22,000 trips, or even more if the islands so desire that we need more. We don't have a choice. We have to run. We've had a couple of incidents. We've had an LPG truck roll over on one of our freight vessels.

It is a very serious business. However, just moving our routes to a different area is going to be difficult.

Again, this is -- this is the same footprint that they have. This is recreational boating and fishing areas that they've identified by the Mass. Marine Trades Association.

All these lines are recreational boater uses that go out to the limits of the state waters. They don't show them going out in the federal waters. Of course they go out in the federal waters, because there's a lot of recreational traffic that goes back and forth to Nantucket.

Buzzards Bay is extremely busy with recreational traffic, as is Cape Cod Bay.

This is infrastructure navigational lanes and transportation routes. These are historic ferry routes. This is a ferry vessel that runs out of Chatham in the summer months.

These are the Steamship Authority's routes here, as is here. As you can see, as things start to get overlaid, things are starting to get a little confusing.

Unfortunately, I fought to try to overlay everything so it would be a real mess, but you can kind of get an idea what it would look like.

This is exclusionary criteria for habitats. This is all the National Seashore and areas where they don't want to put anything. However, now you're still layering more restrictions, if you will, on what the -- these state water uses are.

Again, the doughnut hole only has a little bit put in there, the federal waters, and state -- the state areas are really filling up with things.

These are sensitive areas. This is almost everything put over on top of everything.

Again, recreational boating, ferry routes. Where are they going to put these structures, wind turbines, kinetic -- hydrokinetic energy units? And also the sand mines? It's going to be very, very difficult to navigate through that area.

States and the federal agencies have to work together. And also, again, with the stakeholders. They have to include the stakeholders in all these things.

Again, going back to NOAA, it's going to be NOAA's responsibility to ensure that where these things, they know where they are. They're going to move these hydrokinetic machines. They're going to move them around.

What kind of things are they going to do with sand mining? What's going to happen to the bottom contours? All of these things are going to have to be accurately depicted.

In the federal waters, there's enough water for us to navigate. Again, moving our historic routes or any historic ferry routes or shipping lanes that have been there, yes, they're very --

It was difficult, but they did move the shipping lanes to protect the North Atlantic right whale, and it progressively is pushing the vessel and merchant vessels -- Naval vessels I guess can go wherever they want.

It's getting more difficult to safely navigate. Again, this goes back to NOAA to ensure -- ensuring that the information that we get, whether we use ECDIS or the paper charts, that we have accurate information so that we don't have any kind of accident.

Thank you.

ED WELCH: Thanks, Captain Gifford.

I guess one question which we would put to NOAA and, at the proper time, our panel, is how does NOAA systematically monitor the introduction of new facilities or structures or different changes that are going to then necessitate NOAA making the changes in the end, in the priorities of their charting and surveying and other activities.

Other questions from the panel? Captain McGovern.

CAPTAIN ANDY McGOVERN: Thanks.

Just to give you a heads-up, in New York we're starting, and then we're also starting to push north and south from New York, in partnership with NOAA and the Coast Guard is developing safety fairways, similar to what they have in the Gulf, but the ones in the Gulf are put in kind of as an afterthought after a lot of it was already in place.

And with all these plans for, you know, all these alternative energy projects, we figured it's best to get these safety fairways put in before so that at least you've got the areas for shipping and for recreational boats and for -- for, you know, other uses, you know, fishing, et cetera, so that they're already laid out. And then these developments will have to happen outside of those safety fairways.

So it's something we're starting. You'll probably be getting a call soon, but we're starting to reach north and south from New York, and we figure we've just got to do this on the entire East Coast will be easiest way to do this.

CAPTAIN GREGORY GIFFORD: Probably.

I think it's a little late for Nantucket Sound, but they did establish a new -- after the B120 spill at Buzzards Bay, which was a 98,000-gallon six oil spill, and the unfortunate thing --

Captain Landry was this charge of Providence at the time, and now she's in it a little bit deeper in the Gulf, but they established a suggested route. And now with AIS being implemented on all the vessels and the Corps of Engineers tracks those vessels, Massachusetts -- the Mass. DEP have -- has gone back to court again not to detract from ferryboats, but anyway, this is -- I had more time on merchant ships than I do on ferryboats, so...

That they are -- they're requiring a state pilot ride, pick it up down in Cleveland Ledge Channel and ride it through.

So right now, there's a lot going on. There's court cases, states being kind of called on the carpet for -- with the federal government as the state's superseding the

federal government policies.

When I was on tankers my last five years, I ran from Texas to the West Coast, LA Long Beach, San Francisco, Portland, Oregon, Washington state.

Going into Washington state, there was -- Washington state would come on my ship and say I want to see overtime records and work hours and all this. And I would say no, that's proprietary information. You're not going to get that. Well, we can throw you off the dock. And I ended up throwing him off and the Coast Guard came down and said that probably wasn't a good idea. But I did it anyway.

The bottom line was Intertanko filed suit against the State of Washington for superseding federal regulations. They wanted -- they wanted us to put two more people on the bridge and six more people on the vessel.

And so the states have to understand that -- and again, I spoke about jurisdictional boundaries and the cooperation between federal and state.

And also the stakeholders, like, you know,

New York, you got Maersk Line, Stolt-Nielsen, many, many different organizations going in and out of New York and up and down the East Coast. You throw in a couple of whales, it throws everything off.

So thank you, unless there's more questions.

ED WELCH: Okay.

Any other questions? Okay. Thanks, Captain.

You know, one thing that those -- those overlay slides do illustrate is there are a lot of uses in those open oceans. And of course that might be one -- one justification for ocean zoning or marine spatial planning.

But on the other hand, what looks to a lot of people as sort of open, unused space, it is not really open, unused space.

So thanks very much for your presentation.

Okay. We now are going to switch from Massachusetts to Rhode Island, and Grover Fugate.

Welcome.

GROVER FUGATE: Thank you.

Actually, that was a good segue, because that's exactly what I was going to open up with.

ED WELCH: Sorry about that.

GROVER FUGATE: No problem. No problem.

We also have engaged in an effort somewhat different in Massachusetts, somewhat similar. But one of the conclusions as you get into this very rapidly is that I think the common person has an understanding when they look out there, there's not a lot going on; but as you understand start to understand what is out there, you realize there is a lot going on.

And I think that's one of the reasons that a lot of states are looking at marine spatial planning.

A lot of states on the eastern seaboard are looking at it from an energy perspective, too.

I am a member of an Atlantic Governors Consortium, which represents states from Florida to Maine, and I can assure you every one of them is looking at offshore energy as a -- not only as an energy source but also as

an economic driver for their states.

If you look at electrical generation and usage in this country, almost 80 percent of the electricity is consumed by 28 coastal states. So it is very much a coastal issue in terms of energy consumption.

And if we start to throw in climate change and dealing with that, it's going to become more imperative, I think, that the coastal states start to look at this.

The project-by-project basis I would suggest is not the way to go about this. I think a planning effort and looking at the existing uses and then trying to, if you want, shoehorn these projects in, because in some areas it gets very busy, and that's pretty much what you're doing, I think that's the better approach, going into it with eyes wide open, knowing what the uses are.

With that, I'm going to show you some of the mapping products and some of things that we've actually been working on.

I am trying to generate -- and it may be of interest to the board, because these are

products I would suggest sometimes NOAA might be able to expand some of the work that they're doing and actually provide more useful information.

We're using what's called a Special Area Management Plan process. We are a coastal program out of NOAA, and as such, we use these SAMPs, Special Area Management Plans. For us, they're ecosystem-based tools.

And in Rhode Island, actually, we have zoned the waters of the state within the three-mile limit. This is the Port of Providence, and what you'll see is we have six use categories. The predominant one that you're seeing here is type six, which is dedicated to industrial and port-related uses.

So in navigational waters within the state are protected as a navigational entity by the program. Each of our water types carries appropriate uses and inappropriate uses that we will not allow.

And each of the uses that are allowed also carry standards that they have to meet in order to get a permit, even though it may be an

accepted use within them.

This plan was actually adopted in 1983, so we have a history of 27 years of marine spatial planning in the state, so we know a little bit about it.

As I indicated, each of the water types carries a set of policies and appropriate uses, and we also for each use have a set of policies and standards for each of those uses.

This document now is going out and is looking at not just the state waters, because we already have zoned all those state waters, but it's going 30 miles offshore.

The reason we did that is we are primarily getting funded through a readable energy grant. So not only are we looking at marine spatial planning, but we were also supposed to see if we can fit this new kid on the block out in this ocean space.

We chose 30 miles, because 20 is the practical limit for AC transmissions for these structures. And we wanted to have a good ten-mile overlap on any dataset we would generate so we would understand what was going

on the other side of the line.

In addition, what Rhode Island did is we were able to cobble together by this time almost $10 million to go out and to data collection.

Data is very sparse even within the three-mile limit. But when you get even beyond state waters, the datasets drop off. Most of the data that we saw existing out there was generated in the '50s and '60s and is obviously past its useful life in many cases for those data, but it's the only thing that we have.

So we pulled together all the existing data, and then we started to go out and generate new data and new data sources.

I should also mention that we're working in collaboration with the University of Rhode Island, and we have about 60 scientists and policy people that are working on this project outside the University of Rhode Island that are assisting us both with the data collection and generation and then a simulation and a plan.

One of the things that we look at -- and when you're looking at trying to figure out

where you this new kid probably should go is you want to know, one, what the resource is, whether it's even worth going out and planning for; and then two, what areas you shouldn't put it in.

So we had a series of exclusionaries that we were going to take off from consideration.

Part of that also was because although ten million sounds like a lot, because you're using platforms that cost $20,000 a day, it runs out very quickly. And you need to focus your efforts in research in a concentrated effort so that you can get useful information in those areas that actually show promise.

We have narrowed it down to wind resource, because one of the first exercises that we went through is we actually evaluated what was commercially available out there in terms of marine renewable energy technologies and then assessed each of those for environment.

And the only one that shows utility-grade promise right now is wind for our state. We're micro-tidal. We have a tidal exchange of less than a meter, so in-stream current is not going

to be useful.

Wave is generally a West Coast phenomenon, because of the prevailing westerlies. Again, we don't have a wave climate given current technologies to generate anything.

So the one thing we were left with really was the wind energy.

This is the actual planning boundary. The yellow lines represent the state jurisdiction for this, and what we also did before we even started this is we reached out to MMS, who is the principal entity for regulating wind power in the offshore, the OCS, and we reached out to the Army Corps, because they tend to be the primary permitting entity within state water.

So we wanted to do this as a joint effort with those two agencies, cross-jurisdiction, both state and federal waters.

This is a wind map, and one of the things that I should note for you is that if you think that the charts and whatnot are problematic, this data is all model.

There are no data collection devices that are collecting at 80-meters hub height right

now in the offshore environment.

Eighty meters is what the banks look for. So in many cases, the banks and insurance companies become de facto regulators on a lot of this, but the company -- before they can get financing -- will need three years' data at 80 meters before they can go.

What there is is model data. And the other thing that I'll note for you is that the power production function off of these turbines is a cube of the wind speed. So a small change in wind speed means a huge number on the power production side.

Hence, they're trying to get in these offshore waters to get the most out of these structures.

One of the other things that we had to consider is that this is a marine construction operation, and we wanted to rule out areas that may be problematic.

And, of course, as I said, the datasets that we had are best guests on most of the marine geological conditions. But we used two people that together between them had probably

almost 80 years' experience in the marine environment off our waters and asked them to come up with their best guess as to where these moraines are.

Now, moraines are concern because they look like this. This is the bluff off of Mohegan Bluffs on Block Island. It's a terminal moraine, and they're very complex geological environments.

And as a consequence, they have also suffered multiple glaciation events. So this gray material has been compacted by several glacial events, has a consistency of bedrock almost.

The boulders in there, some of them are the size of houses, and they tend to be granitic material. Not a very good environment for driving piles.

Most of the marine construction operations for these would either be pile-driving or cable-laying. Neither one of these you really want to really do this in this environment.

If you have to convert to a drilling separation, your cost can go up by orders of

magnitude of two to three.

So based on their guess -- and we pushed them a little bit further over the edge and asked them to come up with an ease of construction map, which they did.

All this, again, was to try to put together new tools that we didn't really have at the time to start and to weight and sort areas out for so that we would be able to folks our intensive research efforts on those areas that showed promise.

So using this data, and also some other data, this is the AIS vessel track data which we purchased for this period of time. And this is what the raw data looks like, as you're probably aware. Pretty much useless to us, because whether that vessel goes there once or a thousand times, it shows up on the chart.

So what we had to do is we gridded this system off and bin the data.

So if we use five vessel counts through the area, this is what it looks like. If we go with 50, the navigation patterns tighten up.

We wanted to know this, because although

there are navigation routes, the vessels don't stay in those routes all the time. And we didn't want to interfere in areas that were heavily used by commercial navigation.

This is VMS data. So this is your fishery picture now. And you can see what the routes are for the fishermen and where they tend to concentrate their activities. But again, this dataset is another set that's out there.

Now, this is one that NOAA's enforcement branch handles. And to gain access to this, you have to sign a confidentiality agreement. It's very difficult to get and manipulate for the public to start to understand this, because vessel positions in fishing spots are proprietary data, so...

What we also had to consider is because visual is one of the primary regulatory issues, it seems, these days, we also wanted to understand what the visual impacts were.

So these are visual siting moraines. Essentially what you're looking at is you want to be about 15 kilometers off given the current turbine size that's in use.

I should just state right now that most of this has been designed for three-and-a-half-megawatt turbine that are about 315, 320 feet tall. There are newer generations of turbines already coming out at five megawatts, 512 feet tall. And they've got a ten-megawatt machine on the drawing boards.

So these things are getting massive. And part of the issue with the marine issue versus the land system, the land system is pretty well capped at three-and-a-half megawatts, and the reason for that is they just can't move the pieces on the road systems.

So the only way they can move these major pieces is on water, and so there's -- right now, the limiting factors in terms of the size of this seems to be the blade design.

One of the tools we helped or developed at the ocean school -- the Graduate School of Oceanography, but this is through the ocean engineering branch there, is we developed this technology-based assessment.

What we wanted to look at was we wanted to look at some way of weighting these systems and

looking at them so that we can start to sort areas out to focus on research.

This TDI looks at two factors basically, a power production function versus an ease of construction.

So it's weighting out both those factors and gives you a nondimensionalized ratio, and you can put it into a GIS format, and that's what it looks like.

So the blue areas are a one-to-one ratio, which means that you have very high-power production, very low construction cost. And the blue areas are the ones that you would focus in on.

What we started to do, though, is you can modify this system by adding in other factors.

So one of the factors we obviously wanted to consider was marine construction. And the map completely transformed on us when we put the geology in.

So the blue areas are still the areas we want to look for, but now it's starting to focus the areas. Okay?

Now, remember also we had those

exclusionaries that we didn't want to put wind farms in, so we put those on the maps along with the navigation, the AIS data, and it starts to narrow down the areas even more.

And they can do this on a regional scale. This is a TDI showing for the entire region with the AIS and VMS data on there, so you can start to see the areas that might have potential on a regional basis for wind farm development.

Now, this is only looking at several factors. There's still a lot of other things that we have to weigh in and throw in on this obviously.

So one of the other things we needed to do was look at the marine user. And there is no data, so we had to go out and create it.

So we have a very large, robust stakeholder process that we've been working through, and we sat down with a number of groups to actually start to plot out where they used and how they used these areas both on a seasonal basis and also from a usage perspective.

And, of course, if you get into actually choosing a site that you think has potential, then you get all the resource data in behind this to weigh out whether that site still holds up because of the NEPA analysis it has to go through.

So just to give you an idea, these are some of the maps, and these are fishing vessel tracks that come out of Point Judith, primarily; but these are the courses that they're taking to the various areas. This was worked out with our fisherman groups.

This differs somewhat from the VMS data, but it is the tracks that we will typically see.

This is the recreational fishing areas. And again, we sat down with the recreational fishing groups over many meetings to plot out the areas that they fish in.

This is the mobile gear operations, and you'll see some white lines here, and those white lines are seasonal differences that exist, because what's happened is over the years, the fixed-year and the mobile-year guys

that worked out informal arrangements where each sector can go and fish in a particular area during a particular point in time.

So this map sort of recognizes those differences in terms of those areas.

The interesting thing is that we went and met with the mobile-year guys. They gave us their areas. And then we met with the fixed-area guys, and they give us those areas, and the lines match up beautifully.

So there are these arrangements that do exist that both recognized, and this gives us a very good idea of what's going on.

Now, these areas may not be fished every year. They may be fished once every five years or whatever, because, as you're well aware,, the species are transitory in how they're using the area. Population dynamics and all the rest of it, responding to climate change, throw it all in there.

And so there's a mix that's going on out there that it changes all the time.

And when you put it all together, you see very quickly that they use the entire area,

which they told us from the start, but the maps sort of depict that now.

So we sat down and worked with the fishermen to say, okay, if this is coming, wouldn't you rather have a say in where it's going and work with us in plotting that out, and you guys can work out the compensation issues afterwards and all the rest of it, but let's sit down and try to figure out what's the best place to put this so that it impinges upon your industry the least, which they did work with us on and do that.

Another dataset that came out of this is these are VTRs. These are vessel trip reports. Not necessarily a good source of data, because the limitations in the dataset. For instance, it's only for federal fishery licenses that you're going to get this, so the lobster data, for instance, doesn't appear on here.

But it does give you a sense of where the fishing activity is in another dimension other than what the fishermen were telling us.

So it helps verify some of the more if you want to call it reliable fashion in terms of

when they're fishing, it gives you a better sense.

The other thing that we had to look at is there are a series of marine mammals and turtles that are protected, either endangered or threatened.

Plus, we looked at other marine mammals that tend to inhabit this area because they're, as they call them, the charismatic megafauna. The last thing you want to do is interfere with whales or other marine mammals

So we got the data. We got it from the -- a consortium that maintains a private database. And when you start to look at these data points, they start to show up as aggregates. And one of the things that you first have to do is correct it for effort.

Because, for instance, some of these dots are whale-watching tours. So they have a lot of sightings of whales, but that's because they're going out looking for whales.

So you have to correct for that effort in order to make sure you've got an accurate picture of what's going on.

So what we did was we actually used the models that were developed for this, and you come up with I call them occurrence blobs, but they're done by season.

And for the North Atlantic right whale, which is what this is, Rhode Island doesn't show up as a very big spot in terms of usage area.

Stellwagen Bank obviously does, but Rhode Island doesn't. They are transitory through the area but do not usually hang there to feed for any length of time.

The other thing that we needed to be aware of was marine birds. There's virtually no datasets on marine birds except for some of the NOAA datasets which exists for vessels.

There were some bird observers on vessels; but again, you're very limited as to where that vessel is going and what the picture is. So we did bring that database in and correct it for effort.

But we also had to start collecting our own datasets that we would get representative samples.

Some very interesting things that came out of this, and that is that the bird numbers in our offshore waters are two to three orders of magnitude lower than the Nantucket Sound site that you were seeing there in terms of the Cape Wind project.

That, because the shallow depth and habitat, is a site that is occupied by a lot of marine birds, particularly diving ducks.

The other thing that came out of our study is that our -- we also worked with a number of European countries on this. They have over 20 years' experience.

Diving ducks are limited in terms of the depth that they can go. And typically what we're seeing through our datasets is that they stick within 20 meters or less of waters.

So our marine bird people, based on the data that we have where these farms have located -- because what seems to have happened in Europe is if you put it in diving duck habitat, it displace them for that foraging area.

So one of things they asked us to do is

where there were concentrations of these species in 20 meters or less, to take these off the charts from -- for any consideration of at least a larger-scale energy project, because there will be a loss of that foraging habitat.

The other things that we started to gather is subbottom profile data, and this is one of the areas that I was potentially suggesting.

We collected side scan and multibeam, but we needed to know the depth of the sediment for marine construction, and subbottom profiling gives us that depth picture.

It's also very useful for the academics, and I'll show you here in a bit some the products that we're starting to generate out of this, because it starts to give us a sense of looking at the area and has completely transformed our understanding, subbottom data has, of what happened during the last glaciation and our understanding of the offshore requirement.

We also have put out several buoys that are fully instrumented, so they're collecting everything from wind to chlorophyll to oxygen

temperature.

We've got one in an offshore site and one in a near-shore site so that we can start to get some data at least in the terms of differences between those two areas, and we're starting to run high-resolution net models off those.

Again, some of the usage maps that we started to generate, this is for sailboat races. There's some areas that are very important outside the mouth of Narragansett Bay and Block Island. There are multiple race events that are held in these areas.

These are areas probably, again, that you don't want to put a lot of structures in, which would seal them off from these races.

Speaking of races, these are distance racing courses, and each of the races are labeled there. But as you can see again, there are a lot of commercial racing activity that goes on in this offshore environment.

This is recreational boating cruising routes. Now, obviously the recreational boats are all over the place out there, but when

they're cruising to various places, these are the typical routes they will use, so we wanted to understand that picture.

ED WELCH: Dr. Fugate, we've got about ten minutes or so. We probably will want to ask you some questions, so I don't know how much more you've got on --

GROVER FUGATE: Not a lot more.

ED WELCH: Okay.

GROVER FUGATE: These are diving sites, also historic wrecks which we wanted to know about, and we ran our own marine ecological program with some of the other data.

These are some of the recreational uses, which also includes shark cage diving for some of these areas, but we needed to understand that.

And in addition, there has been a development that's been chosen by the state that's actually started to do some of their own geological work. This was a rig that they were using off of there doing some cores.

This is the south end of Block Island, and this is some high-resolution side-scan sonar

that we ran to start to get a better picture of this, because one of the things the state wanted to do was put these small-scale wind farm project off the south end of Block Island.

This is the side-scan sonar, so it gives, again, a very high-resolution picture. We've supplemented this with additional datasets going beyond these areas.

We've filled in the gap. We were using the ENDEAVOR. That's why that gap exists, because that wasn't a safe place to go given the depths.

We also do ground truthing, so these are ground truth sites. And you'll see some of the data starting to come out of this. This is grain size.

We run an interdisciplinary team that includes not only geologists by benthic biologists and archaeologists that utilize all these datasets to then go back and map for various purposes.

This is one of the benthic geology habitat maps. It's also a surficial depiction, and the red lines represent what the glacial expression

is underneath.

So it gives us a much better picture of what's going on and becomes the basis of benthic habitat maps.

As I was saying, this is some of the data that we're starting to get, collecting our understanding. This stuff gives us a better idea, because one of the major issues for Section 106, the National Resort and Antiquities Act, is these paleoarcheological sites that may exist offshore.

So we had to understand the environment out there and do paleal landscape reconstruction to depict the sites that had the highest probability for this.

And one of this is now these new derivative maps based off that that is giving us a better understanding of what the last glaciation looked like, where these glacial lakes were, what the surficial expression was out there.

And it's changing, as I said, our complete understanding of this area.

And we're coupling that with the data

that -- this is developer-generated data that we're looking at, cable routes and whatnot. So it's adding in to all our databases and our understanding out there.

One of the things I just wanted to end off with was a case for marine spatial planning.

This block here represents a wave generation proposal that was put into ferret called Grays Harbor. It's in a major fishing area, and because of that it started to generate a lot of interest.

And under the ferret process, they can go out and lay claim on these areas for three years while they gather data. As soon as he put this out as -- and went through the ferret process to lay claim on it, he also then said, well, maybe I also want to do wind in it and maybe LNG, so it started to morph.

People got excited. Congressional offices started to get involved. A lot of time went in on this.

That's the subroutes in and out of Groton. If they had just had that map from the start, it would have saved everybody a lot of time and

a lot of effort. This project didn't stand a chance getting out of the gate given that.

So that's my case for marine spatial planning. Thank you.

ED WELCH: Thank you.

Questions, comments by the panel?

Jon, Jon Dasler.

JONATHAN DASLER: Yes.

I don't know if you can back up the slide. There was a slide right before the side scan, actually. It was like a colored -- depth-colored multibeam image. I was just curious what you were using for tides.

But I think it kind of states the case for the integrated ocean and coastal mapping efforts.

We're seeing a lot of states moving ahead with mapping efforts for coastal and marine spatial planning, but all the striations that you see in there are results of tidal artifacts.

Up in the upper left where there's red and green strikes, the stripe lines on the left side up there, that's probably all most likely

because of poor tidal monitoring and tidal artifacts.

So there's a lot of money being spent to collect this data, but it's not being collected to standards that can be used for charting, and that's something we really need to address.

And I guess I just had another question. When they're doing siting for the energy parks or energy sites, are they also looking at the connections that interties to the cable routes that would connect to the grid?

GROVER FUGATE: Yes, yes.

ED WELCH: Other comments?

CAPTAIN GREGORY GIFFORD: Just one comment.

ED WELCH: Yes, go ahead, Captain.

CAPTAIN GREGORY GIFFORD: Do you want to move to Massachusetts?

ED WELCH: Well, along those lines, I found it -- obviously you made a fairly early policy decision, the state, to exclude areas from development or consideration based on a variety of different factors, and traditional navigation routes being one.

Do you know -- are you familiar with other states' efforts or are you -- or even the federal efforts, other people?

Have other people gotten to that point or -- that seems kind of unique to me.

GROVER FUGATE: Well, I don't know how many states are excluding them. There are other states that are certainly mapping them and trying to understand them.

And MMS has got this multipurpose marine cadaster that they're putting out which is supposed to house a lot of that data.

My understanding is they're essentially data-mining NOAA's database and bringing that into the marine cadaster.

So that people are aware of that, to -- whether to make it a policy decision to exclude it, I can -- I couldn't tell you.

ED WELCH: I haven't seen any indication that the federal government as a whole has expressed too much concern about it one way or the other.

Other comments or thoughts?

Okay. Well, thank you.

GROVER FUGATE: Thank you.

ED WELCH: We appreciate it. We appreciate all the panels this morning.

We're a little bit behind, but that's okay. We can -- we can have lunch now. We're scheduled to resume at 1:15. That gives us half an hour. We can eat in a hurry. So let's plan to resume at 1:15.

(Luncheon recess.)

ED WELCH: Okay.

Folks, we're going to get started again.

Those of you who still have a little bit of lunch, just continue, if you would, please.

And we're going to recognize Gary Magnuson to give us an update on the Federal Committee on Marine Transportation System

GARY MAGNUSON: Thank you, Ed.

When I arrived yesterday morning, I looked around the panel and noticed a number of persons who I worked with in the past, and it brought back many good memories of -- that includes you, Andrew -- and it brought back many good memories of the work that we had done together, but I want to just take -- before I

start take a second to say thank you on behalf of NOAA's Hydrographic Services and your active support through the years.

We're a better agency because of your interest and support. So once again, thank you.

The Committee on Marine Transportation System, I know Ed and our director, Helen Brohl, and I believe Dave MacFarland in the past, have given you updates.

So the first few slides, excuse me if it's material you've seen before. I wasn't -- Ed and I discussed a little bit on a phone conversation before I came up here about what the extent of your knowledge of the CMTS.

So some of the first few slides are basic information that I will go through quickly. So stop me unless you have a question, because what is really the takeaway from my presentation is that where the CMTS is now, the work that it's taken on and hopes to complete and maybe some thoughts as to its future. Okay?

What is the CMTS? It started five years

ago. It's a presidentially-directed cabinet-level interagency partnership.

It was in President Bush's Ocean Action Plan. It's a chartered organization. And right now, it has roughly 27 member agencies. At the time of the Ocean Action Plan, it was around 18, so the membership was grown.

And the Secretary of Transportation, Secretary LaHood in this current administration, is chair.

This is quick list of the members.

Being a former association director, usually the first sign as to the health of your organization is whether the members show up for the meetings or not, because first thing, if the members do not see by coming together not to be a value, why should they waste their time?

The good news is that CTMS members continue to meet, even though the current administration has not affirmed in a positive way the existence of CMTS.

Now, I'll be talking more about that later in my -- later on in my presentation.

This is a little bit more of a description as to what President Bush charged us to do, to improve the Federal Marine Transportation System coordination and policy, including possibly charting. Admiral West.

Develop outcome-based goals for the MTS, integration of existing services and recommend strategies and plans to maintain and improve the MTS.

There is also a fairly clear, although it wasn't in writing, that we should do all this with existing resources. That should probably sound familiar to you.

Why the CMTS? Well, for the air transportation system, you have the Federal Aviation Administration.

For the highway system, you have the Federal Highway Administration. And for railroads, you have the Federal Railroad Administration.

But when you come to Marine Transportation, as you all well know, it's spread across many different agencies.

So until it day comes, if there's a

centralized agency for Marine Transportation within the federal government, the argument is that we need this interagency partnership to try to make sense of all the programs, laws and authorities that the federal government has for Marine Transportation.

Back in I believe 2005, Secretary Mineta, who was the Secretary of Transportation at the time, did talk about this super agency for Marine Transportation; but to my knowledge, nothing has been really focused on since that time.

This is the organization. You have the cabinet level body on top. Next level down is the sub-cabinet body. Then we have a working group that is -- senior staff level that meets monthly.

We have integrated action teams. That's a fancy word for subcommittees. And then we have task teams. The difference between an integrated action team and a task team is the duration of the work.

The task teamwork is more focused, shorter team frame. Integrated action team is a little

longer, longer period of time, a more challenging task.

And the executive secretariate is the staff support for the organization. And I'm -- that's where I am.

Some of you may remember the ICMTS back in the early part of this decade. That's kind of equivalent to our coordinating board now, the old ICMTS, the Interagency Committee on Marine Transportation System, which, because of the directive in the Ocean Action Plan, was ramped up to cabinet-level staffs.

These are our integrated action teams. We use -- the reason we try to use this name is kind of -- it's a sense of the organization. We want to be actionable. We want to be accountable and be results-driven.

These are the IATs that we have now for MTS assessment. I think you heard from Dave MacFarland on our efforts for NAVTEQ research/development and the recently formed IAT on Arctic Marine Transportation.

Oh, the agencies in parentheses next to the IAT name, that's important as well. Those

are the champions for the IAT, gets into this whole bit of accountability, that the member of that agency on the coordinating board is responsible for the success or failure of that particular IAT.

And that champion for that agency representative reports on the status of that IAT at every one of the coordinating board quarterly meetings.

That is far different than what the ICMTS used to do.

Also, another quick comparison between ICMTS and the CMTS is that the White House and OMB were never at the table for the IMCT. They were at the table with the CMTS.

These are our task teams. Again, shorter duration. I'll be getting into a little bit more about what this all means and what they're doing.

This is what we've accomplished to date. I'm going to -- I'm not going to spend too much time on this, because I think past presentations may have covered some of these accomplishments.

Maybe I should take a question, Ed, in case someone has any questions about any of these accomplishments rather than spend time on it?

ED WELCH: If anybody has a question of Gary, why don't we ask it as he goes along.

GARY MAGNUSON: Yes.

This is the national strategy that was adopted by the cabinet body a couple of years ago. I think you probably all have received copies of it.

We did this to kind of decide what best to do first to improve the Marine Transportation System.

I'm pleased to report that NOAA is viewed as a leader within the CMTS. It was a charter member of the CMTS when the charter was formed for the organization.

NOAA was -- the chair of a coordinating board rotates on a calendar basis. NOAA last chaired a coordinating board in 2007, someone -- chaired every one of the single meetings that year. NOAA will be chair of the coordinating board next year.

NOAA and the International Trade Administration represent the Department of Commerce, Margaret Spring, chief of staff for NOAA, is at this time the coordinating board representative for NOAA.

NOAA leads the and is champion for the IAT for NAVTEQ. Reports, task team -- should be a task team there. NOAA coleads the US Arctic Marine Transportation IAT and has told me my job is to support the CMTS.

National strategy, what I was alluding to before, national strategy was adopted, and there's 30 -- there are five challenged areas, five priority areas. Within those five priorities areas there are 34 recommended actions.

We went through a priority setting process and came up with six top-priority actions. And from those six, we drilled into them to identify specific activities to improve the Marine Transportation System, activities that are measurable as to what they want to achieve to improve the Marine Transportation System.

Coordinating board approved all eight of

these activities which essentially makes up the work plan for the CMTS.

These are the activities I just mentioned. These specific activities. I think it was mentioned by Captain Hickman yesterday and Captain Lowell about the integration of PORTS information with the Coast Guard's AIS. We are working on that.

And in fact, I might add, all these eight activities -- and soon to be nine activities -- that constitute the work plan for the CMTS, many of these activities will be achieved by the end of this calendar year.

So by the time this panel meets again, Mr. Chair, I think we'd probably have a very robust report to share with you.

Research and development priorities. If some of you remember, the research and development -- MTS research and development conference, I think the last one was held in 2005 in Washington, DC.

The purpose was to share information about research on the Marine Transportation System. There's going to be a conference in Irvine,

California, end of June, first part of July, to bring that conference back.

But this time, the big difference is that we're going to focus on having a clear takeaway as to how we apply research, develop sort of a plan for that research to address operational needs of the Marine Transportation System.

In other words what comes out of that conference will be applied to the needs of the MTS.

Another activity that's led by the Saint Lawrence Seaway Development Corporation was to address the need to kind of reduce the 24-hour notice requirement for imports across the Great Lakes.

A task team to look at making the PORTS program a more sustainable program. Rather than funding uncertainty of that program over years, the Coast Guard and the Corps of Engineers has joined NOAA to look at a new business model for improving PORTS, an activity that's led jointly by the Coast Guard and Corps of Engineers to look at how can we better plan for tieing up and safeguarding where vessels

are kept so they don't become vessel -- turn vessels into missiles during a disruption like a hurricane and disrupt -- further disrupt the Marine Transportation System.

And if you note, what is required in an activity or any work that the CMTS does, it requires at least three agencies willing to dedicate staff time to that particular effort.

There are -- because agencies have gotten to know each other through the CMTS, there have been bilateral arrangements; but oftentimes, it requires three agencies to have that -- to start that initial snowball that creates an added value to create -- to improve the Marine Transportation System.

Next item is -- is this updated assessment of the Marine Transportation System. The most -- we hope this will be the most comprehensive update or assessment of the Marine Transportation System since the 1999 report to Congress.

Last item is an outgrowth of the conference held last May. It was a conference put on by the Secretary of Transportation,

Secretary of Commerce on supply chains efficiencies and to identify bottlenecks to improve US supply chain.

What's ahead for the CMTS?

The Obama administration, as I mentioned before, is not affirmed the existence of the CMTS.

However, as it was pointed out by a question of the Admiral yesterday, based on Jennifer Lukens' presentation, that in the Ocean Policy Task Force recommendations, that hopefully will be soon submitted to the President, that a CMTS is noted.

We are in an organization framework, and I think Jennifer noted that you have National Security Policy, the Ocean Policy Body -- Council here, or Committee, I guess it is, and off to this side is National Economic Policy.

CMTS is over with National Economic Council. We are really nothing more than a footnote in the whole document. However, the good news is at least we are that.

I worked with the working group who developed the recommendations for the Ocean

Policy Task Force and gave them a presentation on the CMTS, and they very much had the opportunity not to include the CMTS at all in the report.

So whether -- even though we're just a footnote, essentially, at least we're in the report.

As I mentioned before, we're getting on with the execution of specific activities to improve the Marine Transportation System based on the national strategy.

We are in the midst of developing the first, to my knowledge, first ever compendium of federal marine transportation laws, programs and authorities by agency.

We hope to have that be kind of a living document or tool that one can use as a reference document.

Again, the response to the Ocean Policy Task Force recommendations, we're not sure what the President is going to decide.

By the way, discussions have started between the National Economic Council and the CMTS staff on this.

CMTS authorization came up a couple of years ago and was set aside once the policy task force got under way.

The reason for the authorization is two things. When you have a chartered organization that is not authorized in law, when you're not authorized in law, you're prohibited from pooling funds, so member agencies can't come together and pool monies to achieve a particular project.

In other words, the Coast Guard, who is the champion for the national strategy, essentially had to foot the entire bill for this document.

The Corps of Engineers, which has the lead for the CMTS assessment, essentially had to put up a couple hundred thousand dollars by itself to do that assessment.

Authorization in law would enable us to pool funds. Second thing, it gives us a little bit more certainty to take on long-term issues for the Marine Transportation System.

So that's been tabled pending the outcome of the Ocean Policy Task Force

report/recommendations. And I mentioned the -- mentioned the conference already.

That's it. Questions?

ED WELCH: Thanks, Gary.

Adam?

ADAM McBRIDE: Thanks, Ed.

Regarding the presidential affirmation, Gary, that you mentioned or that doesn't exist under the Obama administration, what about specific funding for staff, for functions, for travel that goes on by CMTS employees?

Or are they housed or do they live with another department?

How is that structured? Isn't that affirmation?

GARY MAGNUSON: Yes, it is.

In fact, as I said before, the members continue to meet and do good work until they're told otherwise, Adam. That's the good news.

As far as staff and our -- our office space and the like, we're housed through the courtesy of the Maritime Administration. We're on the second floor of the new Department of Transportation Building over on New Jersey and

M near the Washington National Stadium, if you have an idea where that is in Washington.

My positions paper by NOAA, the other two staff persons that join me in providing staff support to the CMTS, one is put up by the Army Corps of Engineers, and the other is put up by the Maritime Administration.

So between those three agencies putting up a staff position and an office space, providing pens, paper, and those things, and computers, by the Maritime Administration, that's about it.

Although we did get some money from MIRAD [phonetic] in I think FY10 that we're able to do the compendium with and a couple of small projects. But we don't foresee that happening again.

ED WELCH: Matt.

MATT WELLSLAGER: Matt Wellslager.

Gary, could you build a little bit more on the national strategic activities and implement a sustainable national PORTS?

What's actually taking place there?

GARY MAGNUSON: If you want me to take a

shot -- Rich is the lead for this activity, so Rich, why don't you go.

RICHARD EDWING: Yes.

So I am the lead on that, and I've got representatives from the Corps and the Coast Guard working with me, and this is actually about with trying to address Recommendation No. 3 in the HSRP report, is how are we going to get PORTS to sustainable place.

What I'm trying to do through this -- through the MTS is highlight the -- well, identify and highlight the growing federal reliance on the PORTS system.

When we establish a PORTS nowadays, it's -- you know, different sensors are identified to address local user navigation safety issues.

But the data that's being put out can also help the Corps with dredging, it can also help the Coast Guard with oil spills. And there's, you know, many other mission outcomes it's helping with.

And so I'm trying to educate and highlight this federal reliance not just on the existing

PORTS system but to expand how it would help better meet the federal mission requirements, so tell the bigger story of the benefits of PORTS, okay?

And then -- and that's kind of where we're at now, kind of gathering all these information requirements from different agencies. And not just those, they're going to DoD as well, to get some of the national security requirements.

So we're going to pull in all that information, do an analysis of that, and we're going to look at that and see what I'll say the true national requirement is or national requirement based upon both the local user needs as well as the federal needs.

And with that information we'll look at what are some alternatives to the existing business model, if you will, you know, the business model recommended by HSRP reports, federal funding. The existing business model is, you know, the PORTS paying.

Another potential path is tapping the HMTF, although I know all issues with that.

There's also different sorts of cost

sharing -- we have to kind of put forward all these different cases, and what I'm hoping to end up with at the end of the day is kind of an endorsement of one of these alternatives from the CMTS.

And again, it's -- it's highlighting the importance of this program and trying to get, you know, get it funded in a sustainable manner

MATT WELLSLAGER: Good, thank you.

ED WELCH: Other observations?

Larry.

LARRY WHITING: I got a question.

Do I ask you the question or should I ask it of Ed?

ED WELCH: Both.

RICHARD EDWING: Well, if it's that one, it's me.

LARRY WHITING: It is that one. It's a budgeting question, though.

The President's budget had no money in it that I could see for the implementation of PORTS; that is correct?

RICHARD EDWING: The President's budget has $5 million in it to support the federal

infrastructure that's required to support the existing partnership, cost-shared partnership, okay?

And there is additional money in this year's budget that was provided by Congress over and above the President's request to pay for the O&M on the existing ports, but that's not -- that got dropped, as add-ons always are, for the FY11.

Is that -- does that answer your question?

LARRY WHITING: That's what I was --

RICHARD EDWING: Okay.

GARY MAGNUSON: While you're thinking, I'd like to add a couple of more points that have come to mind, Mr. Chairman.

The last time the cabinet body met was over two years ago, close to two years ago. And in that meeting, they adopted a national strategy.

Some people say, well, why hasn't the cabinet body met since then?

We don't want to have a meeting just to have a meeting for the cabinet body. In other words, we have to have a very robust and

meaningful agenda to take to them.

Since that time, the coordinating board has really stepped up to be the leading body for the CMTS, the sub-cabinet body. And our focus is really to improve operations of the Marine Transportation assessment, not such policy at this time.

We did -- we did make an attempt a couple of years ago to take on the Harbor Maintenance Trust Fund and seek $110 million increase through the Corps of Engineers for maintaining of key federal waterways.

I see us come back to that eventually when the Obama administration embraces the CMTS more heartily. And I say that because the Secretary of Transportation, who is the chair of the organization, hasn't taken a lot of interest in the CMTS as of late.

He has met with the coordinating board, but as far as being the driver for policy, it hasn't happened yet, I'm hopeful that it will happen.

So in the meantime, our focus is to improve the operations of the MTS, the nine

activities -- and I have eight listed, and the ninth one was the one that the coordinating board just approved a few weeks ago, is does it stand up a -- an e-navigation integrated action team.

The reason I don't have it listed as an activity is because we're not sure what they're going to do yet except for a national e-navigation plan. They're going to be meeting shortly. There's a number of agencies that are interested in it.

And to answer your question of me, which, I'm sorry, I wasn't necessarily paying full attention, Admiral West, is that how initiatives get started with the CMTS.

I think the members are starting to really get it, that when they meet or they have obtained a relationship by me, they get an idea that maybe my program could be enhanced through interagency support. The PORTS task team is a good example.

Another good example of improving the integration of information provided by the Coast Guard through AIS and NOAA through PORTS,

about integrating those to make it more user-friendly for the mariner.

The idea that NOAA had just I think about six months ago, everyone knows that there's shipping going on in the Arctic, and probably that's likely to increase.

And NOAA raised the question, saying, well, what are we going to do about that? How are we going to prepare for that?

So NOAA hosted a meeting of interested CMTS member agency on the topic. I think we had close to 10 or 11 agencies represented at that meeting, including the State Department, Coast Guard, Corps of Engineers and the like.

And it was decided at that meeting that we needed to come together, utilizing the CMTS to see what is the best coordinated federal response to marine shipping in the Arctic.

So that's why the IAT was established, and the IAT right now is developing an inventory of federal marine transportation activities in the Arctic, and from there we're going to be doing a gap analysis as it what best to do.

So that gives you an idea of how we

operate. As far as your idea, Admiral West, about coordinating federal charting, if there is a federal agency that's willing to champion that, we would certainly bring it to the forum.

Any other questions?

ED WELCH: Gary, do you anticipate that the CMTS will have any role post incident to the transocean spill and response down in the Gulf?

I would think so, Ed. Because after Hurricane Katrina, there was a cabinet-level CMTS meeting. And the cabinet representatives and the cabinet who were in attendance at that meeting, they focused almost the entire meeting as to what was our response, how we will did we do, and where are the areas that we can improve the response.

I would think the same thing will happen to -- in response to the oil spill.

ED WELCH: Because I don't want to be overly, you know, cynical the way I normally am; but, you know, if you're looking for presidential affirmation, study and advance notice of arrival of cross-lake freight ferries

is not the way to get White House affirmation. Being involved in some spill evaluation and anything back on the CMTS might be a little more relevant to their mindset.

GARY MAGNUSON: I understand your point.

ED WELCH: Sherri.

SHERRI HICKMAN: I see that -- let's see, one of your bullets was improve the interagency coordination to increase resumption of waterway use following a disruption.

I guess mine is more of a comment on it, but we in Houston have offered ever since actually Rita to have -- and we saw Bob Peacock's presentation yesterday where the guys arrived with the side-scan sonar and the boat and they rigged their open mount for it to be able to use it.

And we've offered to -- tell us what size mount you need, post any storm that affected us, we -- you can use our boat, just send the guys and the side-scan sonar, and you've got a boat to try to open the waterway up.

Any pilot in the area would probably offer to do that than take the expense of building it

on their boat, because it's in our best interest to open that waterway back up as well.

And it seems like you got to cattle prod them every so often. And I'll call Alan Bunn and say, hey, you know where this stands? Oh, I'll look into it.

But, as I think with any government agency, it kind of takes forever to get something done. But to me, that would be a -- for the -- for important waterways, that's the best way to get anything done pretty quickly to open it.

GARY MAGNUSON: The focus of that particular activity, Captain, as I mentioned before, it's really to get vessels out of harm's way that would break free and collide or disrupt the existing marine transportation infrastructure. That's the focus of the activity right now.

It's a task team that's focusing on just this area, but I -- your point's noted.

SHERRI HICKMAN: So basically, if I'm standing right, you're talking about getting the port cleared out prior to a storm.

GARY MAGNUSON: Correct.

SHERRI HICKMAN: I think every port, if I'm not mistaken -- I know we do, we have requirements of so many hours before landfall, we're talking three days, up to 12 hours, what we will do --

GARY MAGNUSON: Some do better. That's the intent of the activity, is to try to improve things.

SHERRI HICKMAN: Okay.

GARY MAGNUSON: Any other questions?

Yes, Gary.

GARY JEFFRESS: Gary Jeffress.

Just to add to Sherri's comment, I've been told by the Corps of Engineers that the amount of crude that can be stored at Texas City, which is where the major refineries are in Houston, is only 72 hours' worth.

So once the port is shut down for more than 72 hours, they have to shut down those refineries, and the price of gasoline will skyrocket.

So it's a national concern to have a port like the ship channel in Houston open within 72

hours of a storm event or any sort of incident.

GARY MAGNUSON: The -- there are reminders -- in just your two comments, it's interesting to watch how members interact more and more by meeting through the CMTS, and we're all kind of limited as to making the most of existing resources.

If we had some new money and we could move out in some special issues that would truly get the administration's attention of improving the Marine Transportation System, but -- and members continue to meet, because essentially, the vast majority of them view it as the right thing to do.

SHERRI HICKMAN: One other comment.

Yes, Gary, you're right. Houston is the same way, Shell, Exxon, 72 hours. We deal with that with fog even, not even a storm, because we'll only move those wide bodies during the day, and sometimes that's not enough of an open window for us to move them in.

So they miss their window of opportunity when we have fog. And they start crying if we're looking at 60 hours and they're not sure